1 VQE results Aer Estimator (With Shots)

(Full Hamiltonian) Harmonic Oscillator $\Lambda = 16$ COYBLA Max 10k Iterations

Ansatz	Tolerance	Shots	Converged runs	Mean iter	VQE min E.	σ_{min}	Δ_{min}	VQE median E.	Δ_{median}	Exact	Time
RA r1 rl	1e−01	10000	100/100	82	1.06e−02	2.4565e−03	1.06e−02	7.24e−02	7.24e−02	0e+00	00h 10m 12s
RA r1 rl	1e−01	10000	100/100	82	1.06e−02	2.4565e−03	1.06e−02	7.24e−02	7.24e−02	-	00h 10m 12s
RA r1 rl	1e−02	10000	100/100	113	5e−04	3.8727e−04	5e−04	5.08e−02	5.08e−02	-	00h 14m 29s
RA r1 rl	1e−03	10000	100/100	135	2.6e−03	1.0098e−03	2.6e−03	4.93e−02	4.93e−02	-	00h 17m 10s
RA r1 rl	1e−04	10000	100/100	156	2e−03	1.1565e−03	2e−03	3.53e−02	3.53e−02	-	00h 17m 35s
RA r1 rl	1e−05	10000	100/100	169	3.3e−03	1.1787e−03	3.3e−03	4.765e−02	4.765e−02	-	00h 17m 46s
RA r1 rl	1e−06	10000	100/100	184	2.4e−03	8.716e−04	2.4e−03	4.33e−02	4.33e−02	-	00h 15m 42s
RA r1 rl	1e−07	10000	100/100	204	4.6e−03	1.5162e−03	4.6e−03	4.065e−02	4.065e−02	-	00h 15m 10s
RA r1 rl	1e−08	10000	100/100	216	3.3e−03	1.0435e−03	3.3e−03	4.715e−02	4.715e−02	-	00h 13m 59s
Ansatz	Tolerance	Shots	Converged runs	Mean iter	VQE min E.	σ_{min}	Δ_{min}	VQE median E.	Δ_{median}	Exact	Time

Table 1